The Monitor

The Quarterly Newsletter of the ETV Advanced Monitoring Systems (AMS) Pilot

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Stakeholders Take Next Step in Pilot

Two stakeholder committees met on February 24 and 25 in Columbus, Ohio, to start the next phase of the ETV Advanced Monitoring Systems (AMS) pilot. The objective of the AMS pilot is to verify the performance of commercially available monitoring technologies. The initial focus of the pilot is on air and water monitoring systems; later, the pilot will also include soil monitoring systems.

The stakeholder meeting was held at the headquarters of Battelle, a not-for-profit technology research and development corporation selected by the U.S. Environmental Protection Agency (EPA) as its partner for the AMS pilot. AMS is one of 12 pilots in EPA's Environmental Technology Verification Program (ETV). The goal of ETV is to accelerate the acceptance of environmental technologies.

At the February meeting, the two stakeholder committees identified and prioritized technology needs for air and water monitoring; reviewed a draft Request for Technology (RFT - see article on page 3); and provided input on the criteria to be used by Battelle to evaluate RFT responses from vendors.

Read more about the committees' recommendations on page 2.

Scenes from the February Stakeholder Meeting

Penny Hansen, EPA/ETV Program Coordinator, presents a program overview.

Judith Chow of the Desert Research Institute, Nevada, and Rudy Eden of the South Coast Air Quality Management District, California

Left to right:
Tom Logan, U.S. EPA
Geri Hart, Tinker Air Force Base
Donald Stedman, University of Denver

Priority Technology Needs

Based on advice provided by the Air and Water Stakeholder Committees in the February meeting, the following priority technology needs were included in the Request for Technology issued by the AMS pilot in March, 1998.

Air Technology Needs

1. Real-time field instruments that can measure fine particulate matter in ambient air or that correlate with the Federal Reference Method for this measurement.

2. Automated monitoring with sample inlets especially designed for speciation of volatile organic compounds (VOCs) in ambient air.

3. Portable field NO/NO_2 analyzers for monitoring emissions from small sources (e.g., internal combustion units and small boilers).

4. Real-time field monitors for measurement of speciated organics and/or inorganics from point sources.

Water Technology Needs

1. Home test kits for measuring pathogens (e.g., fecal coliform) or metals (lead, copper) in drinking water.

2. Chemical-specific field probes for monitoring volatile organic compounds or synthetic organic compounds in groundwater.

3. Real-time field instrumentation for monitoring pathogens or synthetic organic compounds in surface water.

4. Rapid field measurement technology to determine the "wholesomeness" of seafood (e.g., finfish and shellfish) by measuring the presence of polycyclic aromatic hydrocarbons and other contaminants.

Members of the Stakeholder Committees for Air and Water Technologies Represent Diverse Perspectives:

Air Stakeholder Committee

American Petroleum Institute
Arizona Department of Environmental Quality
Ashland Chemical Company
California Air Resources Board
Desert Research Institute
DuPont
Electric Power Research Institute
Emission Monitoring, Inc.
Environmental Business International
Gas Research Institute
Mid-Atlantic Regional Air Management Association
New York State Dept. of Environmental Conservation
Ohio EPA
Owens Corning
South Coast Air Quality Management District, California
U.S. Air Force
U.S. Army
U.S. EPA
University of Denver
Vorys, Sater, Seymour, and Pease Attorneys
World Resources Institute
Zurich American Specialties

Water Stakeholder Committee

Alcoa
American Association of Port Authorities
American Petroleum Institute
California State Department of Health Services
City of Colorado Springs
ECS, Inc.
Environmental Business International
Massachusetts Water Resources Authority
National Groundwater Association
Nebraska Department of Environmental Quality
NOAA
Northeast Ohio Regional Sewer District
Northwest Mining Association
Ohio Innovation Fund
Ohio River Valley Water Sanitation Commission
River Watch Network
San Francisco Estuary Institute
SCDHS Office of Ecology
University of Nebraska
U.S. EPA
U.S. Navy
WMX, Inc.

Names and addresses of all stakeholder committee members are available on the Web at http://www.epa.gov/etv/plt-07.htm.

Good Response to Initial Request for Technologies

The AMS pilot received more than 50 responses to the initial request to vendors to submit their air and water monitoring technologies for verification testing. The Request for Technology (RFT) invitation was sent in March to several hundred interested vendors. The RFT emphasized that technologies identified by the AMS Stakeholder Committees for air and water technologies were being sought (see article on previous page).

Battelle, EPA's partner in the AMS pilot, has reviewed the responses to the initial RFT invitation and grouped them into technology categories. A technology category is a group of similar technologies that could be evaluated together in a single verification test. Conducting verification tests for a group of similar technologies reduces the verification testing effort and cost for each technology.

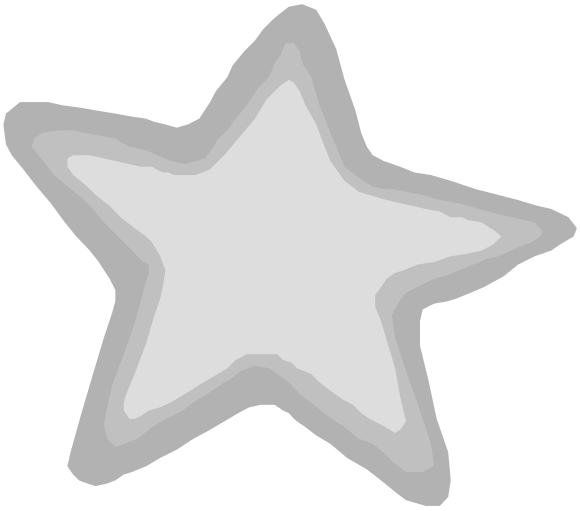
Based on the initial review, Battelle is now planning initial tests to verify technologies in the following categories:

- Portable NO/NO_2 analyzers for small sources
- Open-path optical monitors (FTIR and UV) for real-time measurement of various pollutants in air downwind from point sources
- In-stack optical and mass spectrometric monitors for real-time monitoring of various pollutants in source emissions.

Verification protocols and test plans are being prepared for these categories and testing is expected to begin in October 1998. Battelle invites vendors with technologies in these categories to submit them for testing, to maximize the number of technologies that might be tested. Other categories for which technologies are being sought include:

- Systems for continuous measurement of fine particle mass and species in air and source emissions
- Automated monitors that can speciate volatile organic compounds in ambient air
- Water technologies that meet the priority needs identified in the first stakeholder meeting (see article on page 2).

Vendors interested in having the AMS pilot verify their technology are invited to complete and submit the RFT Submittal Form (available at http://www.epa.gov/etv/plt-07.htm or by contacting Helen Latham at 614-424-4062 or lathamh@battelle.org).



Abbreviations

AMS – Advanced Monitoring Systems

EPA – U.S. Environmental Protection Agency

ETV – Environmental Technology Verification

FTIR – Fourier Transform Infrared

NOAA – National Oceanic and Atmospheric Administration

NO – nitrogen oxide

NO_2 – nitrogen dioxide

PM – particulate matter

RFT – Request for Technology

UV – ultraviolet [light]

VOC – volatile organic compound

"When I presented the first Hammer Award, I had a strong conviction that federal employees were ready, willing, and able to create a government that works better and costs less."
Vice President Al Gore

Q&A

What are the products of verification testing and how can they be used?

The products of a verification test are a report stating quantitatively the performance of the technology, and a verification statement, issued jointly by Battelle and the EPA, that summarizes the verification results.

A vendor can use the verification statement and report to market its technology. These documents will provide potential buyers and users with third-party quality-assured data on technology performance under realistic testing conditions. The verification test report and verification statement will also be published on the EPA's ETV website at http://www.epa.gov/etv/.

AMS Pilot Shares Hammer Award

The AMS Pilot shared in the honors in April when the U.S. Environmental Protection Agency's Environmental Technology Verification (ETV) Program received a Hammer Award from the Office of the Vice President. Penny Hansen, ETV's program coordinator, included in the award the ETV program staff and the pilot managers from verification organizations, including Battelle.

The purpose of the Hammer Award is to honor teams of government and private sector employees and citizens who are working together to build a better government. The award consists of a $6 hammer, a ribbon, and a note from Vice President Al Gore, assembled in an aluminum frame.

"Being included in this award indicates the excellent performance of the entire Battelle team over the past six months and the close working relationships we have established with our EPA counterparts," said Karen Riggs, Battelle's pilot manager. Other key Battelle team members are: Sandra Anderson, Mary Duchi, Linda Garvey, Tom Kelly, Helen Latham, Gretchen Hund, Todd Peterson, and Mark Curran.

More information about the Hammer Award, which is part of the process to reinvent government, is available on the National Performance Review website, http://www.npr.gov.

Upcoming Events

June 1998

AWMA Annual Meeting, ETV Session, June 14-19, San Diego.

September 1998

Second Stakeholder Committee Meeting:
Water, September 10-11, Seattle
Air, September 16-17, Chicago.

October 1998

Initial verification tests begin.

March 1999

Pittcon '99, ETV Session, March 7-12, Orlando.

ETV ***The Advanced Monitoring Systems (AMS) pilot is a part of the U.S. EPA's Environmental Technology Verification Program. Visit AMS on the Web at http://www.epa.gov/etv/plt-07.htm.***